

## **REMARKS**

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

### **I. CLAIM STATUS & AMENDMENTS**

Claims 1, 3, and 5 were pending in this application when last examined.

Claims 1, 3, and 5 are finally rejected.

New claim 6 has been added by this amendment.

Upon entry of the present amendment, claims 1, 3, 5, and 6 will be pending in this application.

Support for new claim 6 can be found in the specification, for example, at page 2, lines 20-24 and in original claim 5

Therefore, no new matter has been added by this amendment.

### **II. REJECTIONS UNDER 35 U.S.C. §§ 102 & 103**

#### **A. Sato (claim 1)**

Claim 1 remains rejected under 35 U.S.C. § 102(e), as anticipated by or, in the alternative, as obvious under 35 U.S.C. § 103(a) over Sato et al., U.S. Patent No. 5,753,727. See item 1 on page 2 and item 5 on pages 2-4.

This rejection is respectfully traversed for the same reasons set forth in the response filed March 3, 2004 and for the following reasons especially as applied to new claim 6 which excludes the presence of large amounts of uncarboxylated chloroprene rubber. New claim 6 depends on rejected claim 1.

Claim 1 calls for a synthetic chloroprene rubber adhesive composition containing: (1) **100 parts by weight of carboxylated** synthetic chloroprene rubber as the main ingredient; (2) tackifier; and (3) 1-30 parts by weight of chlorinated polypropylene and/or chlorinated polypropylene derivatives. Thus, carboxylated synthetic chloroprene is the **main ingredient** of the instant invention.

New claim 6 calls for an adhesive composition which consists essentially of said carboxylated synthetic chloroprene rubber and chlorinated polypropylene and/or chlorinated polypropylene derivative. Thus, new claim 6 excludes the presence of large amounts of uncarboxylated chloroprene rubber.

As discussed in the prior response, Sato fails to disclose or suggest carboxylated chloroprene rubber as the main ingredient of an adhesive composition in the amounts claimed (100:1-30 parts by weight). Instead, Sato discloses an adhesive composition wherein chloroprene rubber or a 50:50 combination of chloroprene rubber and carboxylated chloroprene rubber are the main component.

In reply to this argument, the Examiner noted that the claims do not exclude the presence of non-carboxylated chloroprene, whether at a 50:50 proportion or otherwise. However, this is not the case with respect to new claim 6, which is drawn to an adhesive which “consists essentially of” and thus, excludes the presence of large amounts of uncarboxylated chloroprene rubber.

Furthermore, the claimed proportions do call for carboxylated synthetic chloroprene as the main ingredient. Sato lacks a suggestion to use carboxylated chloroprene rubber as the main ingredient, because Sato does not discuss the effect of carboxylated chloroprene rubber on adhesive properties. Instead, Sato at column 11, lines 66-67 concludes that the addition of “chlorinated polyolefin” has the effects on adhesive properties to polypropylene. Again, as noted in the prior response the addition of chlorinated polyolefin is considered common sense in the field as evidenced by JP 1-153781. Thus, Sato suggests to use “chlorinated polyolefin” to increase adhesive properties to polypropylene, and not carboxylated chloroprene as the main ingredient (100:1-30 parts by weight) as claimed.

Also, as discussed in the prior response, the present invention exhibits unexpected and superior properties indicative of non-obviousness due to the use of carboxylated chloroprene rubber as the main ingredient. Specifically, the specification at pages 4-6 (Tables 1-3) compares the adhesive compositions of the present invention (Test Examples Nos. 2-4) in which carboxylated synthetic chloroprene rubber is the main ingredient to conventional synthetic chloroprene rubber adhesives (Test Example No. 1) such as those in Sato, wherein the main ingredient is chloroprene. See page 4, line 10 to page 6, line 13. As shown in Table 2 on page 5, and as discussed at page 6,

lines 1-13, the conventional synthetic chloroprene rubber adhesives exhibited the lowest adhesion when compared to those of the present invention.

In fact, the adhesive compositions of the present invention exhibited higher values of adhesive strength in all normal test conditions, i.e., heating, ageing, and high temperature. In addition, as shown in comparative Examples 3-5 in Table 3 of Sato, adhering properties were ***not improved*** even though the composition comprises 50 parts by weight of chloroprene rubber and 50 parts by weight of carboxylated chloroprene rubber as the main component.

Also, the data in the specification, e.g. Table 1, shows the result of employing 100% non-carboxylated chloroprene rubber versus 100% carboxylated chloroprene rubber, and such showing is sufficient, to support at least new claim 6 which excludes the presence of large amounts of chloroprene rubber (non-carboxylated).

These improved adhesive properties flow from the use of carboxylated chloroprene as the main ingredient, and thus, the present invention actually increases the adhesive properties of such conventional adhesive compositions including chlorinated polyolefin as disclosed in Sato. Since Sato does not discuss the effect of carboxylated chloroprene rubber on adhesive properties and concludes that the addition of "chlorinated polyolefin" has the effects on adhesive properties to polypropylene, the present invention exhibits unexpected and superior properties over the conventional adhesives of Sato.

Thus, Sato fails to disclose or suggest the use of carboxylated chloroprene rubber as the main ingredient of an adhesive composition, especially with regard to new claim 6.

Therefore, in view of the above, the rejection of claim 1 under 35 U.S.C. §§ 102(e) and 103(a) is untenable, especially with regard to new claim 6, and should be withdrawn.

**B. Sato in view of the admitted prior art (claims 3 and 5)**

Claims 3 and 5 remain rejected under 35 U.S.C. § 103(a) as obvious over Sato in view of the admitted state of the prior art. See item 3 on page 2 and item 5 on pages 2-4.

This rejection is respectfully traversed for the same reasons noted above, especially with regard to claim 5 and new claim 6.

Claim 3 calls for a synthetic chloroprene rubber adhesive composition containing carboxylated synthetic chloroprene as the main ingredient. Claim 5 and new claim 6 contain the term "consists essentially of", and thus, exclude the presence of large amounts of uncarboxylated chloroprene rubber.

For the same reasons set forth in the section immediately above, the rejection of claims 3 and 5 under 35 U.S.C. § 103(a) is untenable, especially as applied to claim 5 and new claim 6, and should be withdrawn.

**C. Admitted State of Prior Art in view of Smith, Kirk-Othmer, optionally in view of Sato and/or JP1-153781 (claims 1, 3, and 5)**

Claims 1, 3, and 5 remain rejected under 35 U.S.C. § 103(a) as obvious over the admitted state of the prior art in view of Smith, U.S. Patent No. 3,347,847 and/or Kirk-Othmer Encyclopedia of Chemical Technology, and optionally further in view of Sato and/or the Abstract of JP1-153781. See item 4 on page 2 and item 5 on pages 2-4.

This rejection is respectfully traversed for the same reasons discussed above, and for the reasons noted below, especially as applied to claim 5 and new claim 6 which exclude the presence of large amounts of uncarboxylated chloroprene rubber.

The deficiencies of Sato and the alleged admitted state of the prior art have been discussed above previously and are reiterated herein.

As discussed in the previous response, Smith fails to suggest the use of carboxylated chloroprene rubber as an adhesive against polypropylene, let alone as the main ingredient in such adhesive. Instead, Smith merely discloses a process for isolating a stable synthetic carboxylated chloroprene rubber, but fails to discuss its adhesive properties against polypropylene.

The Kirk-Othmer Encyclopedia of Chemical Technology discloses that carboxylated chloroprene rubber has good adhesive strength and high temperature cohesive strength. However, this reference fails to disclose or suggest the specific combination of the claimed invention, namely the use of carboxylated chloroprene as the main ingredient.

JP1-153781 only discloses one liquid type of a conventional self-crosslinking chloroprene adhesive including chlorinated polypropylene. The addition of chlorinated polypropylene is

considered known in the art. However, as demonstrated in the specification, the present invention actually increases the adhering properties of the conventional adhesive compositions including chlorinated polypropylene. Also, the cited reference fails to disclose or suggest the specific combination of the claimed invention, wherein carboxylated chloroprene is used as the main ingredient.

In view of the above, the rejection of claims 1, 3, and 5 under 35 U.S.C. § 103(a) is untenable, especially with regard to new claim 6, and should be withdrawn.

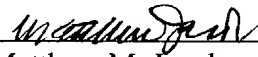
### CONCLUSION

In view of the foregoing amendments and remarks, the present application is in condition for allowance and notice to that effect is hereby requested.

If it is determined that the application is not in condition for allowance, the Examiner is invited to telephone the undersigned attorney to expedite prosecution of the present application.

Respectfully submitted,

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